

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16. (Cancelled)

17. (new) A method for correcting signal distortions in an amplifier device, the method comprising:

producing the digital PWM reference signal from the PWM data in a first pulse width modulator, the first pulse width modulator being controlled with a predetermined system clock;

producing a digital PWM signal from the PWM data in a second pulse width modulator, the second pulse width modulator being controlled with a variable-frequency system clock;

amplifying the digital PWM signal;

determining an amplifier deviation from the digital PWM reference signal and an amplified digital PWM signal;

producing a controlled variable from the amplifier deviation in a control device;

feeding the controlled variable to a control input of a variable-frequency device; and

producing the variable-frequency system clock in the variable-frequency device,

wherein the first pulse width modulator and the second pulse width modulator are triggered at a predetermined PWM pulse rate.

18. (new) The method as claimed in claim 17, further comprising:
producing the PWM data in such a way that with each clock of the predetermined PWM pulse rate, a quantized item of PWM information is calculated; and
further wherein the digital signal comprises a PCM-modulated digital audio signal.
19. (new) The method as claimed in claim 17, wherein the variable-frequency device comprises one of a group consisting of a voltage controlled oscillator and a current controlled oscillator.
20. (new) The method as claimed in claim 17, wherein the variable-frequency device is synchronized with the predetermined PWM pulse rate.
21. (new) The method as claimed in claim 17, wherein at least one of a group consisting of the digital PWM reference signal and the amplified digital PWM signal passes through a filter device before the amplifier deviation is determined.
22. (new) The method as claimed in claim 17, wherein the amplifier device comprises at least one of a group consisting of an H-bridge circuit and a class-D amplifier.
23. (new) The method as claimed in claim 17, further comprising:

using the controlled variable to set a frequency of the variable-frequency device in such a way as to minimize a difference between the digital PWM reference signal and the amplified digital PWM signal.

24. (new) The method as claimed in claim 17, further comprising:

feeding the amplified digital PWM signal to an acoustic sound transducer.

25. (new) The method as claimed in claim 24, further comprising:

determining the amplifier deviation from the digital PWM reference signal and the amplified digital PWM signal using a loudspeaker signal.

26. (new) The method as claimed in claim 17, further comprising:

comparing the variable-frequency system clock with the predetermined system clock in a phase detector;

determining a phase difference between the variable-frequency system clock and the predetermined system clock;

filtering the phase difference in a filter device; and

adding the filtered phase difference to the controlled variable to form a modified controlled variable.

27. (new) The method as claimed in claim 26, further comprising:

filtering the modified controlled variable in an additional filter device; and

applying the filtered modified controlled variable to the control input of the variable-frequency device.

28. (new) The method as claimed in claim 27, wherein the control input comprises a modulation input.

29. (new) The method as claimed in claim 17, further comprising:
varying the frequency of the variable-frequency system clock continuously over time.

30. (new) The method as claimed in claim 17, further comprising:
varying the frequency of the variable-frequency system clock at discrete times.

31. (new) The method as claimed in claim 17, wherein the PWM data is produced from a digital signal in a digital circuit.

32. (new) A device for correcting signal distortions in an amplifier circuit, the device comprising:

a first pulse width modulator triggered at a predetermined pulse rate and configured to produce a digital PWM reference signal from PWM data;

a second pulse width modulator triggered at the predetermined pulse rate and configured to produce a digital PWM signal from the PWM data, the second pulse width modulator being controlled with a variable-frequency system clock;

an amplifier device for configured to amplify the digital PWM signal;
a device configured to determine an amplifier deviation from the digital PWM reference signal and an amplified digital PWM signal; and
a variable-frequency device configured to produce the variable-frequency system clock based on the amplifier deviation.

33. (new) The device of claim 32, further comprising:

a control device configured to produce a controlled variable from the amplifier deviation; and

wherein the variable-frequency device produces the variable-frequency system clock from the controlled variable.

34. (new) The device of claim 32, further comprising a filter device for filtering at least one of a group consisting of the digital PWM reference signal and the amplified digital PWM signal before the amplifier deviation is determined.

35. (new) The device of claim 32, further comprising:

a phase detector for comparing the variable-frequency system clock and the predetermined system clock in order to determine a phase difference, and

further wherein the phase difference is added to the controlled variable.

36. (new) The device of claim 32, further wherein a frequency of the variable-frequency system clock is varied continuously over time.